REMARKS

I. Formal Matters

Claims 1-16, 30-38 and 48-58 are currently pending in the application.

Claims 1, 6, 11, 16, 30, 32, 37 and 52 are the only currently pending independent claims and are amended hereby. No new subject matter is being added by these claim amendments, and support for the claim amendments can be found throughout the originally filed specification and claims.

II. Claim Rejections

Claims 1, 3, 6-7, 9, 11, 13 and 50-58 are rejected under 35 USC §103(a) as being unpatentable over U.S. Patent No. 7,265,402 to Koyanagi. Claims 2, 4-5, 8, 10, 14-16, 30-38 and 48-49 are rejected under 35 USC §103(a) as being unpatentable over Koyanagi in view of U.S. Patent Publication No. 2003/0123779 to Hashimoto. Applicants respectfully traverse the rejections.

A. Regarding independent claims 1, 6, 11, 16, 30, 32, 37 and 52

Exemplary independent claim 1 has been amended hereby to recite in relevant part: "an adhering section, which is made of resin overall, for adhering said solid state image pickup device and said light-transparent cover." Independent claims 6, 11, 16, 30, 32, 37 and 52 are also similarly amended.

The Office Action alleges that "an adhesive 46" of Koyanagi corresponding to "an adhering section" of the claimed invention, and that Koyanagi discloses all the features of claim 1. Namely, the Office Action alleges that the source/drain region 23b of the MOS transistor M in Koyanagi corresponds to the effective pixel region 3 of the claimed invention; the rectangular cap 51 corresponds to the light-transparent cover 4; and the electrodes (output terminals) 16 correspond to connection terminals (bonding pads) 6.

Applicants disclose in the originally filed application that:

> When, adhesive in which photosensitive adhesive (such as a UV-setting resin belonging to the acrylic resin family) and thermosetting resin (such as an epoxy resin) are mixed is uniformly applied onto the light-transparent plate 10, and when pattern formation (patterning) is then carried out by means of a known photolithography techniques, a large number of the adhering sections 5 are formed simultaneously on the light-transparent plate.

(p. 29 lines 18-25). In essence, the adhering section of the second embodiment is made of resin overall, when viewed generally or approximately as a whole.

Moreover, the originally filed specification states that:

> Adhesive in which photosensitive adhesive and thermosetting resin are mixed is uniformly applied onto the surface of the semiconductor wafer 20 on which the solid state image pick up devices 2 are formed. Then, adhesive is patterned by means of a known photolithography technique, so that the adhering section 5 is formed in each solid state image pickup device 2.

(p. 35 lines 9-15; See also p. 30, lines 11-17). Similarly, with respect to the third embodiment, the specification makes clear that the adhering section is made of resin overall when viewed as a whole.

Koyanagi, however, does not teach or suggest "an adhering section, which is made of resin overall" as recited in claim 1. Rather, the adhesive 46 is formed by locating and fixing Al film on microlenses 43 and interlayer insulator film 26 (column 18, lines 34-39), coating the surface of Al film with adhesive 45 (column 18, lines 40-45), fixing single-crystal Si plate 41 on the surface of adhesive 45 (column 18, lines 42-45), etching a part of Si plate 41 and the adhesive 45 (e.g. column 19 lines l-6, column 19 lines 42-49), and applying adhesive 45 on Si plate 41 to fix rectangular cap 51 (column 19 lines 55-59).

The adhesive 46 in Koyanagi is thus made of the combination of aluminum, resin and single-crystal Si. Unlike the present invention, Koyanagi does not disclose that an adhering section is made of resin overall when viewed when regarded as a whole. Therefore, Koyanagi does not teach this element of independent claims 1, 6, 11, 16, 30, 32, 37 and 52 and the rejection of these claims and all dependent and intervening claims (all pending claims) is inappropriate on at least these grounds and should be withdrawn.

B. Regarding claims 1, 6, and 11

The Examiner has acknowledged that Koyanagi fails to disclose that the light transparent cover has "planar dimensions smaller than those of said solid state image pickup device" as claimed in claims 1, 6 and 11.

The originally filed specification specifically discloses that prior art solid state imaging devices whose light-transparent covers are as large as or larger in planar dimension than the solid state image pickup device itself is disadvantageous for size reduction purposes. (See e.g. pg. 4, ll. 13-21.) This advantage is unique to the present invention, and Koyanagi fails to teach or suggest this element. Therefore, the rejections of claims 1, 6, and 11 and dependent claims 2-5, 48-51; 7-10, 53; and 12-15 and 54 are improper, and should be withdrawn.

C. Regarding claim 7

Claim 7 further recites that "said light transparent plate is divided so as to from light-

transparent covers each having planar dimensions smaller than those of said solid state image pickup device." Applicants respectfully submit that the Office Action fails to address whether the prior art teaches or suggests "dividing" of the light-transparent cover in the manner recited in claim 7. Therefore, for at least these reasons, the rejections of claim 7 and claims 8-9 which depend therefrom are inappropriate, and should be withdrawn.

D. Regarding claim 51

Claim 51 recites in relevant part, "the adhering section seals said light-transparent cover to said solid state image pickup device. As shown in Figure 1 of Koyanagi, the adhesive 46 (alleged adhering section 5) is attached to the Si plate 41, which constitutes part of the wall 50. The imaging device 2 of the present invention, however, is directly attached to the light-transparent cover by the adhering section 5 as shown in Figure 2B. Therefore, Koyanagi does not have an adhering section that seals the light transparent cover to said solid state image pickup device, as recited in claim 51.

Therefore, for at least these reasons, the rejection of claim 51 is inappropriate, and should be withdrawn.

E. Claims 4-5 and 14-15

Claims 4 and 14 both recite in relevant part that the "adhering section seals the outer periphery of said space. Claims 5 and 15 recite that the "adhering section is formed outside said effective pixel region in said one surface of said solid state image pickup device.

The Office Action states that "Koyanagi modified by Hashimoto discloses the adhesive section 36 seals the outer periphery of the space (Hashimoto Fig. 8.)." O.A. pg. 4. While Figure 8 of Hashimoto illustrates that the sealing material 58 does not cover the optical section 14 (alleged effective pixel region), one of ordinary skill in the art would not have been motivated to combine the adhesive layer 36 and sealing material 58 of Hashimoto with the adhesive of 46 of Koyanagi because Hashimoto states that "no gap may be provided between the adhesive layer 36 and the optical region 14. There is such a gap in the adhesive 46 of Koyanagi as depicted in figure 1.

There is no teaching, suggestion or motivation to combine these two references, and in fact the two references are inapposite in this regard, and no such motivation is provided in the Office Action. Therefore the rejection of claims 4, 5, 14 and 15 are inappropriate on at least these grounds. Applicants respectfully request withdrawal of these rejections.

F. Claims 16 and 31

The Office Action alleges that claim 16 recites substantially the same elements as independent claims 1, 6 and 11 except for the claimed "lens" and "lens retainer" for retaining the lens.

Hashimoto discloses a lens 78, however, Koyanagi in view of Hashimoto is at least deficient because Hashimoto lacks the claimed "lens retainer," as recited in independent claim 16. Moreover, the Office Action does not provide a motivation for one of ordinary skill in the art to combine these two references to achieve the claimed elements. Therefore the rejection of claims 16 and 31 are inappropriate on at least these grounds. Applicants respectfully request withdrawal of these rejections.

G. Claim 33

Claim 33 requires that the terminal is formed on an reverse surface to the board to which the image processor is adhered. It is unclear whether the arrangement of Figure 1 of Koyanagi discloses such an orientation. Applicants respectfully request clarification regarding how Koyanagi allegedly teaches this claim element of the present invention.

CONCLUSION

For the foregoing reasons, and in view of the amendments above, Applicants believe all pending claims (i.e., claims 1-16, 30-38, 48-58) are in condition for allowance and hereby request allowance.

Applicants believe that no other fees or extensions are required. However, if for any reason a fee is required, the Office is conditionally authorized to charge Deposit Account No. **04-1105** for the appropriate amount(s).

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Respectfully submitted,

By _____

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